

AGENDA ITEM: Telecommunications Infrastructure

GENERAL OVERALL PROGRAM UPDATES:

CURRENT STATUS: At its February 2000 meeting the Board adopted program priorities for FY 1999-2000 that were developed at its planning meeting on February 16, 2000. Among these priorities was:

“Board decides telecommunication model at the regional level and implements the selected model.”

An additional program priority was proposed for FY 2000/2001:

“Implement ILL at the regional and inter-regional levels.”

At its April 2000 meeting the Board adopted criteria for Telecommunications Infrastructure projects. They are as follows:

- Regional telecommunications programs geographically conform to Library of California planning regions, with participation by libraries that meet Library of California Interim Eligibility requirements and are capable of supporting the appropriate technologies.
- When a Regional Library Network replaces a planning region eligibility consists of membership in the Regional Library Network and the ability to support the appropriate technologies.
- Regional Library Networks address regional resource sharing protocols and ongoing regional telecommunications infrastructure needs in their annual Plans of Service.
- Regional Library Network gateway catalogs are available to the general public via remote Internet browsers.
- Regional Library Networks use the Z39.50 protocol as the access protocol for their telecommunications infrastructure programs.
- Regional telecommunications programs should include electronic interlibrary loan with the goal of public-initiated loan requests via the Internet.
- Regional Library Networks address the issue of access to materials outside the region through the adoption of standards and resource sharing protocols in collaboration with other Regional Library Networks.
- Libraries requesting Z39.50 server software apply through the Library of California Z39.50 Server Software Grant program.

Also in April the Board authorized the expenditure of up to \$2,262,000 to support project grants for regional telecommunications infrastructure leading to the establishment of regional library catalog access, electronic interlibrary loan, and electronic patron authentication, and that the Board direct its Chief Executive Officer to develop a grant program to award these funds

Grant applications (Exhibit A) were prepared by staff and forwarded to Regional Network Planning Group and Cooperative Library System contacts. The deadline for filing applications was May 26, 2000. Applications (Exhibit B) were received from all regional planning groups.

General Issues:

- Regional applications reflect the current assets and program directions available in each planning network. Projects that started out as cooperative library system endeavors maintain a strong public library presence. A challenge for these projects will be to diversify their participating libraries.
- Staffing levels and costs vary significantly, as do the position descriptions. The recruitment and retention of technically competent staff was identified as a key implementation issue in Joan Frye Williams' 1999 *Linked Systems Update* study.
- Most applications call for consulting help to evaluate current capabilities and to options for expansion of access and resource sharing. Few applicants seemed ready to implement a plan without further study.
- Where interlibrary loan systems are requested, they are divided between two approaches, even from the same vendor. One approach is to implement a high level of interlibrary loan request management as may be found in the North Bay Cooperative Epixtech/URSA "Supersearch" project. The software that makes "Supersearch" able to exercise a higher level of loan management is proprietary to the vendor.

The second approach is to use systems with a lower level of interlibrary loan management but within a slowly evolving standard. An Example of this approach is the MCLS/SLS project using the Epixtech WEBPac and RSS loan software.

The trade-off between the two approaches are primarily based on cost, both to acquire and operate the systems and to support their telecommunications infrastructure. Generally speaking, the higher the degree of loan management, the higher the cost of purchasing and managing the system. If Library of California funds the entire cost of the electronic loan system, this may not be

an issue for the participating libraries and regional networks. It may become an issue if participating libraries or networks assume some or all of the implementation or ongoing costs with other funds.

- Out-of-network resource sharing mechanisms were not addressed by most applications. The normal response was to use existing channels, such as OCLC. Most applicants agree that the linking of regional projects will need to be addressed in subsequent years.
- There are significant differences between the current levels of electronic resource sharing between networks and even within networks. This may call for consideration of different funding strategies. One strategy would be to encourage each network to develop the highest level of electronic resource sharing it could, within budget limitations. A second strategy would be to identify a desirable level of resource sharing and to commit a higher level of funding to those networks that are furthest from meeting this level.
- All applications combined were \$98,858 more than the available funding (Exhibit C). Staff worked with individual programs to adjust their grants accordingly. In addition, awards for each project carried terms and conditions that were relevant to each applicant to assure that program goals and objectives are met.

No additional funds are requested to support the telecommunications infrastructure program at this time, except to continue the Z39.50 server software grants described elsewhere in this Board packet.

BACKGROUND:

The telecommunications infrastructure grant program follows previous Board actions making \$7,500 Z39.50 server software grants to individual libraries that meet Library of California interim eligibility standards and minimum technical requirements.

In addition to the Z39.50 server grants, the LoC Board uses CLSA funds to subsidize the ongoing cost of Z39.50 access to public library catalogs (\$500 per year). It also subsidizes the ongoing cost of Z39.50 Gateway Client systems that are managed by California Cooperative Library Systems (\$5,000 per year).

Z39.50 connectivity establishes the infrastructure necessary to create a virtual statewide database representing the holdings of California libraries. Such a database is an important component of a cluster of access services envisioned in the Library of California Act.

In developing the Board's program priorities staff reviewed the current status of Cooperative Library System (CLS) and local library initiatives to implement Z39.50

connectivity projects on a regional basis. The *Linked Systems Study Update and Proposed Technology Infrastructure for the Library of California*, Joan Frye Williams, November 15, 1999 was helpful in this analysis.

In her Study, Ms. Frye Williams reports:

“Since the last survey of California Linked Systems Projects..., substantial progress has been made. Local Z39.50 server software and regional Z39.50 gateway software have been installed and links have been established for more than fifty additional libraries, including public, academic, school and special libraries. As a direct result of these projects, a number of libraries that have never been accessible via OCLC or any other resource sharing tool now offer their collections for searching over the Internet.”¹

Relevant Committee: Support Services

Staff Liaison: Mark Parker

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¹ *Linked Systems Study Update and Proposed Technology Infrastructure for the Library of California*, Joan Frye Williams, November 15, 1999, p. 11.

APPLICATION SUMMARIES

Applications were received from all seven regional planning groups and were being evaluated by State Library staff at the time this report was written. A brief summary of each regional application follows:

Planning Region 1 – Cascade Pacific

This project will purchase the Epixtech URSA software to support regional catalog access, interlibrary loan and patron authentication. The early implementers' group will consist of most regional academic libraries, public libraries with Z39.50 servers and at least two school libraries. Member libraries are responsible for developing their own readiness.

Planning Region 2 – Golden Gateway

Two proposals were submitted:

1. INN-Reach: This project would purchase the Innovative Interfaces Inc. (III) Inn-Reach system to facilitate resource sharing among Innovative Interfaces customer libraries in Planning Region 2. The application states “this project proposes to use the INN-Reach system to link all member libraries in Region 2 using the Z39.50 standard...” An issue is that the Inn-Reach software that manages interlibrary loan is apparently proprietary to III systems. Other library catalogs might be searchable and other libraries might be able to search Inn-Reach participants, but they would not be able to use the Inn-Reach software to manage resource sharing. The application states “Subsequent years will add other multi-type libraries to the system and expand the service to **non-Innovative** library automation systems.”

2. Regional Resource Sharing Project: Within Planning Region 2 are three gateway projects – NBC's Epixtech URSA “Supersearch”, SVLS/PLS/BALIS's WebZ, and MOBAC's Web2/ILL. This project, titled the “Regional Resource Initiative”, will hire staff and consultants to work with a regional technology team to comprehensively evaluate the existing linking systems and the marketplace. The goal is to develop a single entry point, or portal, for libraries and library users to obtain materials from other libraries in the region. A primary issue is whether to consolidate the existing projects into a single access/resource sharing system or to keep the existing projects separate, but link them through the use of authentication/portal services. Following the study and evaluation of options, a strategy will be selected and implemented.

Planning Region 3 – Sierra Valley

Both 49-99 and Mountain-Valley Library Systems operate DRA Web2 gateway servers, providing access to collections, but not electronic interlibrary loan. This project would expand the current Systems' technology plan to incorporate libraries of all types within the planning region and to develop minimum standards for connectivity. The project also requests funding to support the ongoing costs of the servers, improvements of existing Z39.50 connections and server performance, and the development of an automated ILL system. Staff support is requested to manage the Z39.50 servers and provide technical support to member libraries.

Planning Region 4 – Arroyo Seco

This application is for the third year continuation of an LSTA project to install an Epixtech WEBpac OPAC / RSS interlibrary loan system in the MCLS/SLS cooperative library systems. The ten additional libraries in this project will include at least two libraries from the South State System, and three non-public libraries from somewhere in the region. Seventeen public libraries are to be connected by the end of Year 2 under the LSTA grant, making for a total of twenty-seven. This project demonstrates the NISO10160/10161 standard as an ILL protocol and Z39.50 as an access protocol.

Planning Region 5 – Tierra Del Sol

This is a two-phase project for a region that does not currently have any regional gateway project underway. Phase 1 will fund a consultant to survey regional libraries to determine their readiness for such a project and to investigate options for implementation of a gateway / ILL system, and to select a system.

Phase 2 will expend funds for preliminary implementation, including hiring staff, purchase of initial equipment and negotiation of vendor contracts. "Every effort will be made to demonstrate and/or bring up access to the first participating libraries by June 30, 2001".

Region 6 – Heartland

This project would expand the WEBpac gateway and Epixtech RSS interlibrary loan system currently operated by the San Joaquin Valley Library System (SJVLS) on behalf of its member public libraries to include other types of libraries in the region. Regional community colleges are well represented among the new participants. The participating libraries will mediate Initial ILL activity but unmediated ILL will be tested. This project will include patron authentication using the Epixtech product. The application also points out that the CSU libraries are also installing RSS as their ILL system under the Pharos project.

Region 7 – Gold Coast

This application requests funds to implement the Epixtech URSA gateway server and electronic interlibrary loan system to support public access to library catalogs and materials. Public access via remote Internet browsers and patron-initiated interlibrary loan are part of the project design. This project also includes remote patron authentication.